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EXAMINER

RAMPURIA, SHARAD K

ART UNIT	PAPER NUMBER
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2688

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/789,571

Applicant(s)

RADIC ET AL.

Examiner

Sharad Rampuria

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

- I. The current office-action is in response to the application filed on 2/27/04.

Accordingly, Claims 1-34 are pending for examination as follows:

#### ***Information Disclosure Statement***

- II. The Information Disclosure statement (IDS) submitted is in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner has considered the information disclosure statements.

#### ***Claim Rejections - 35 USC § 102***

- III. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- IV. Claims 1-7 & 12-34 are rejected under 35 U.S.C. 102 (e) as being anticipated by Ayoub et al. [US 6477363]

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As per claim 1, Ayoub teaches:

In a mobile station, a method of facilitating the determination of Global Positioning System (GPS) location information without disrupting voice communications of a voice call involving the mobile station (Abstract and Col.1; 60-64) comprising the acts of:

Causing GPS navigational-type data to be received and stored in memory of the mobile station prior to voice communications of a voice call involving the mobile station; (i.e. locating the cellular phone like triangulation would apply. The GPS receiver comprises a GPS antenna 11 which feeds the received signals from the satellites into a GPS module 12 calculating the position of the mobile telephone resulting in a data item for longitude and latitude, resp; Col.4; 2-12, Col.2; 1-15)

Receiving a voice call request at the mobile station for a voice call through a wireless communication network; (i.e. the communication between the mobile phone and the authority is established; Col.4; 20-35)

After receiving the voice call request: deriving GPS assistance data based on the stored GPS navigational-type data; causing a GPS fix to be performed with signals from a GPS system using the GPS assistance data to thereby obtain GPS measurement data; (i.e. capture the position of mobile; Col.4; 20-35)

Causing the voice call to be established and maintained for the mobile station through the wireless communication network; (i.e. the call connection between the mobile phone and the authority is continued; Col.4; 20-35) and

Causing the GPS measurement data to be transmitted to a location server in the wireless communication network for calculating the location of the mobile station. (i.e. the call

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connection between the mobile phone and the authority is continued; Col.4; 20-35)

As per claim 2, Ayoub teaches:

The method of claim 1, wherein the voice call comprises a 911 emergency call. (Col.5; 1-8 and Col.1; 60-64)

As per claim 3, Ayoub teaches:

The method of claim 1, wherein the act of causing the GPS navigational-type data to be received and stored in memory of the mobile station comprises the further acts of regularly causing the GPS navigational-type data to be received and stored in the memory during one or more time periods that the mobile station would have otherwise been in an idle mode of operation. (i.e. the position data is acquired repetitively in constant time intervals, e.g. every five minutes, and is stored in a controller 13 together with a time stamp representing the time of position acquisition; Col.4; 12-19)

As per claim 4, Ayoub teaches:

The method of claim 1, wherein the act of causing the GPS navigational-type data to be received comprises the further act of causing the GPS navigational-type data to be received from the location server. (Col.4; 48-57)

As per claim 5, Ayoub teaches:

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The method of claim 1, wherein the act of receiving the voice call request at the mobile station comprises the further act of receiving the voice call request through a user interface of the mobile station. (i.e. Upon activation of the emergency call by typing 911 on the keypad of the handset; Col.5; 17-23)

As per claim 6, Ayoub teaches:

The method of claim 1, further comprising: identifying a trigger signal indicative of the voice call request at the mobile station; wherein the act of identifying the trigger signal includes at least one of the following: identifying a detection of the mobile station being taken out of a holster, identifying a selection of a phone application of the mobile station, identifying a selection of one or more digits of a telephone number for the voice call, identifying a selection of entry of the telephone number for the voice call, and receiving the trigger signal from a personal computer (PC) or laptop; and wherein the act of causing the GPS fix to be performed is in response to the act of identifying the trigger signal. (i.e. Upon activation of the emergency call by typing 911 on the keypad of the handset or by pressing a panic button, the cellular phone generates the DID number that corresponds to the position obtained from the GPS module.; Col.5; 17-38 and Col.3; 5-17)

As per claim 7, Ayoub teaches:

The method of claim 1, further comprising: identifying a phone number of the voice call; and wherein the act of causing the GPS fix to be performed is contingent on the phone number of the voice call. (i.e. The central office saves the DID and passes the call to a controller 24 which

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is able to perform automatic number identification (ANI) and/or evaluate the mobile identification number (MIN).; Col.5; 23-38)

As per claim 12, Ayoub teaches:

The method of claim 1, further comprising: receiving the location of the mobile station from the location server through the wireless communication network. (Col.4; 36-47)

As per claim 13, Ayoub teaches:

The method of claim 1, further comprising: refraining from causing the GPS fix to be performed during the voice communications of the voice call. (Col.4; 20-35)

As per claim 14, Ayoub teaches:

The method of claim 1, wherein at least a portion of the same wireless receiver is utilized for both acts of performing the GPS fix and causing the voice call to be established and maintained. (Col.4; 48-57)

As per claim 15, Ayoub teaches:

A mobile station (1; Fig.1, Col.3; 66-Col.4; 2), comprising:

A user interface; (keypad; Col.4; 15-19)

A wireless receiver and transmitter; (15; Fig.1; Col.4; 15-19)

One or more processors coupled to the wireless receiver and transmitter; memory coupled to the one or more processors; (13; Fig.1; Col.4; 12-14)

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The one or more processors being operative to facilitate the determination of Global Positioning System (GPS) location information of the mobile station by: causing GPS navigational-type data to be received through the wireless receiver and stored in the memory prior to voice communications of a voice call involving the mobile station; receiving, through the user interface, a voice call request for the voice call through a wireless communication network; (i.e. locating the cellular phone like triangulation would apply. The GPS receiver comprises a GPS antenna 11 which feeds the received signals from the satellites into a GPS module 12 calculating the position of the mobile telephone resulting in a data item for longitude and latitude, resp; Col.4; 2-12, Col.2; 1-15)

After receiving the voice call request: deriving GPS assistance data based on the stored GPS navigational-type data; causing with use of the wireless receiver, a GPS fix to be performed with signals from a GPS system using the GPS assistance data to thereby obtain GPS measurement data; (i.e. capture the position of mobile; Col.4; 20-35)

Causing with use of the wireless receiver, the voice call to be established and maintained for the mobile station through the wireless communication network; (i.e. the call connection between the mobile phone and the authority is continued; Col.4; 20-35) and

Causing with use of the wireless receiver, the GPS measurement data to be transmitted to a location server in the wireless communication network for calculating the location of the mobile station. (i.e. the call connection between the mobile phone and the authority is continued; Col.4; 20-35)



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As per claim 16, Ayoub teaches:

The mobile station of claim 15, wherein the voice call comprises a 911 emergency call.  
(Col.5; 1-8 and Col.1; 60-64)

As per claim 17, Ayoub teaches:

The mobile station of claim 15, wherein the causing of the GPS navigational-type data to be received and stored in the memory is performed on a regular basis during one or more time periods that the mobile station would have otherwise been in an idle mode of operation. (i.e. the position data is acquired repetitively in constant time intervals, e.g. every five minutes, and is stored in a controller 13 together with a time stamp representing the time of position acquisition; Col.4; 12-19)

As per claim 18, Ayoub teaches:

The mobile station of claim 15, wherein the causing of the GPS navigational-type data to be received comprises causing the GPS navigational-type data to be received from the location server through the wireless communication network. (Col.4; 48-57)

As per claim 19, Ayoub teaches:

The mobile station of claim 15, further comprising: identifying a trigger signal indicative of the voice call request at the mobile station; wherein the act of identifying the trigger signal includes at least one of the following: identifying a detection of the mobile station being taken

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out of the holster, identifying a selection of a phone application of the mobile station, identifying a selection of one or more digits of a telephone number for the voice call, identifying a selection of entry of the telephone number for the voice call, and receiving the trigger signal from a personal computer (PC) or laptop; and wherein the act of performing the GPS fix is in response to the act of identifying the trigger signal. (i.e. Upon activation of the emergency call by typing 911 on the keypad of the handset or by pressing a panic button, the cellular phone generates the DID number that corresponds to the position obtained from the GPS module.; Col.5; 17-38 and Col.3; 5-17)

As per claim 20, Ayoub teaches:

The mobile station of claim 15, wherein the one or more processors are further operative to: identify a phone number of the voice call; and wherein the act of performing the GPS fix is contingent on the phone number of the voice call. (i.e. The central office saves the DID and passes the call to a controller 24 which is able to perform automatic number identification (ANI) and/or evaluate the mobile identification number (MIN).; Col.5; 23-38)

As per claim 21, Ayoub teaches:

In a mobile station, a method of facilitating the determination of Global Positioning System (GPS) location information without disrupting voice communications of a voice call (Abstract and Col.1; 60-64) comprising the acts of:

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Identifying a trigger signal indicative of a request to terminate a voice call which is maintained for the mobile station; in response to identifying the trigger signal: (i.e. a panic button; Col.4; 15-19)

Causing a GPS fix to be performed with a GPS system using GPS assistance data to thereby obtain GPS measurement data; (i.e. capture the position of mobile; Col.4; 20-35)

Causing the GPS measurement data to be transmitted to a location server in the wireless communication network for calculating the location of the mobile station; and causing the voice call to be terminated. (i.e. the call connection between the mobile phone and the authority is continued; Col.4; 20-35)

As per claim 22, Ayoub teaches:

The method of claim 21, wherein the voice call comprises a 911 emergency call. (Col.5; 1-8 and Col.1; 60-64)

As per claim 23, Ayoub teaches:

The method of claim 21, further comprising: causing the GPS assistance data to be received in response to identifying the trigger signal. (i.e. Upon activation of the emergency call by typing 911 on the keypad of the handset or by pressing a panic button, the cellular phone generates the DID number that corresponds to the position obtained from the GPS module.; Col.5; 17-38 and Col.3; 5-17)

As per claim 24, Ayoub teaches:

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The method of claim 21, further comprising: refraining from causing the GPS fix to be performed during the voice communications of the voice call. (Col.4; 20-35)

As per claim 25, Ayoub teaches:

The method of claim 21, wherein at least a portion of the same wireless receiver is utilized for performing the GPS fix and maintaining the voice call. (Col.4; 48-57)

As per claim 26, Ayoub teaches:

The method of claim 21, further comprising: identifying a phone number of the voice call; and wherein the acts of causing a GPS fix and causing the GPS measurement data to be transmitted before ending the voice call is contingent on the phone number for the voice call. (i.e. The central office saves the DID and passes the call to a controller 24 which is able to perform automatic number identification (ANI) and/or evaluate the mobile identification number (MIN).; Col.5; 23-38)

As per claim 27, Ayoub teaches:

The method of claim 21, wherein the trigger signal is based on an actuation of an END key. (i.e. a panic button.; Col.5; 17-38 and Col.3; 5-17)

As per claim 28, Ayoub teaches:

A mobile station (1; Fig.1, Col.3; 66-Col.4; 2), comprising:

A user interface; (keypad; Col.4; 15-19)

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A wireless receiver and transmitter; (15; Fig.1; Col.4; 15-19)

One or more processors coupled to the wireless receiver and transmitter; memory coupled to the one or more processors; (13; Fig.1; Col.4; 12-14)

The one or more processors being operative to facilitating the determination of Global Positioning System (GPS) location information for the mobile station without disrupting voice communications of a voice call by: (Col.4; 15-35)

Identifying a trigger signal indicative of a request to terminate a voice call which is maintained for the mobile station; in response to identifying the trigger signal: (i.e. a panic button; Col.4; 15-19)

Causing a GPS fix to be performed with a GPS system using GPS assistance data to thereby obtain GPS measurement data; (i.e. capture the position of mobile; Col.4; 20-35)

Causing the GPS measurement data to be transmitted to a location server in the wireless communication network for calculating the location of the mobile station; and causing the voice call to be terminated. (i.e. the call connection between the mobile phone and the authority is continued; Col.4; 20-35)

As per claim 29, Ayoub teaches:

The mobile station of claim 28, wherein the voice call comprises a 911 emergency call. (Col.5; 1-8 and Col.1; 60-64)

As per claim 30, Ayoub teaches:

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The mobile station of claim 28, wherein the one or more processors are further operative for: causing the GPS assistance data to be received in response to identifying the trigger signal. (i.e. Upon activation of the emergency call by typing 911 on the keypad of the handset or by pressing a panic button, the cellular phone generates the DID number that corresponds to the position obtained from the GPS module.; Col.5; 17-38 and Col.3; 5-17)

As per claim 31, Ayoub teaches:

The mobile station of claim 28, wherein the one or more processors are further operative for: refraining from causing the GPS fix to be performed during the voice communications of the voice call. (Col.4; 20-35)

As per claim 32, Ayoub teaches:

The mobile station of claim 28, wherein at least a portion of the same wireless receiver is utilized for performing the GPS fix and maintaining the voice call. (Col.4; 48-57)

As per claim 33, Ayoub teaches:

The mobile station of claim 28, wherein the one or more processors are further operative for: identifying a phone number of the voice call; and wherein the acts of causing the GPS fix and causing the GPS measurement data to be transmitted before ending the voice call is contingent upon the phone number for the voice call. (i.e. The central office saves the DID and passes the call to a controller 24 which is able to perform automatic number identification (ANI) and/or evaluate the mobile identification number (MIN).; Col.5; 23-38)

As per claim 34, Ayoub teaches:

The mobile station of claim 28, wherein the trigger signal is based on an actuation of an END key at the user interface. (i.e. a panic button.; Col.5; 17-38 and Col.3; 5-17)

***Claim Rejections - 35 USC § 103***

V. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

VI. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayoub et al. in view of Leung [US 6907238].

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As per claim 8, Ayoub teaches all the particulars of the claim except the GPS navigational-type data comprises GPS ephemeris data and/or GPS almanac data. However, Leung teaches in an analogous art, that the method of claim 1, wherein the GPS navigational-type data comprises GPS ephemeris data and/or GPS almanac data. (i.e. ephemeris data and almanac data; Col.1; 30-35) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Ayoub including the GPS navigational-type data comprises GPS ephemeris data and/or GPS almanac data in order to provide a method and apparatus to facilitate the locating and tracking of a wireless terminal, which may be advantageously used for E-911 service.

As per claim 9, Ayoub teaches all the particulars of the claim except the GPS satellite PseudoRandom Noise (PRN) code identifying data. However, Leung teaches in an analogous art, that method of claim 1, wherein the GPS assistance data comprises at least one of: GPS satellite PseudoRandom Noise (PRN) code identifying data, Doppler frequency data, time delay window data, and bit contents of the GPS navigational data. (i.e. ephemeris data and almanac data; Col.8; 23-28) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Ayoub including the GPS satellite PseudoRandom Noise (PRN) code identifying data in order to provide a method and apparatus to facilitate the locating and tracking of a wireless terminal, which may be advantageously used for E-911 service.

As per claim 10, Ayoub teaches all the particulars of the claim except the GPS pseudorange data. However, Leung teaches in an analogous art, that the method of claim 1,



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wherein the GPS measurement data comprises GPS pseudorange data. (i.e. pseudorange data; Col.3; 67-Col.4; 7) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Ayoub including the pseudorange data in order to provide a method and apparatus to facilitate the locating and tracking of a wireless terminal, which may be advantageously used for E-911 service.

As per claim 11, Ayoub teaches all the particulars of the claim except a Position Determination Entity. However, Leung teaches in an analogous art, that the method of claim 1, wherein the location server includes a Position Determination Entity (PDE). (i.e. ephemeris data and almanac data; Col.3; 60-67) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Ayoub including a Position Determination Entity in order to provide a method and apparatus to facilitate the locating and tracking of a wireless terminal, which may be advantageously used for E-911 service.

### ***Conclusion***

VII. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharad Rampuria whose telephone number is (571) 272-7870. The examiner can normally be reached on M-F. (8:15-4:45).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or [EBC@uspto.gov](mailto:EBC@uspto.gov).

Sharad Rampuria  
Examiner  
Art Unit 2688

November 10, 2005

  
GEORGE ENG  
PRIMARY EXAMINER